

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A hydraulic steering device for centre pivot steered vehicles with a centre point steering joint between major first and second ground-engaging components of the vehicles, comprising:

at least one hydraulic swiveling motor for producing the steering movement;

a hydraulic pump with a variable flow rate and reversal of the direction of delivery, the pump in fluid flow communication with the at least one swiveling motor;

the at least one swiveling motor further being a swiveling vane motor that is in the form of a centre pivot steering joint of the centre point-steered vehicle or is arranged in the rotary axis of the centre point steering joint of the vehicle, the at least one swiveling motor having at least one fixed vane and at least one moveable vane, the at least one fixed vane being fixed in relation to the first ground-engaging component, the at least one moveable vane being fixed in relation to the second ground-engaging component and wherein the at least one moveable vane pivots about the rotary axis.

2. (previously presented) The steering device of claim 1, wherein: the variable flow pump with reversal of its delivery direction is also a constant displacement pump, and configured to be drivenly coupled to a controlled variable speed electric motor.

3. (original) The steering device of claim 1, wherein: the variable flow pump with reversal of its delivery direction is a variable displacement axial piston pump with a swashplate.

4. (previously presented) The steering device of claim 1, wherein: at least one additional swiveling motor is arranged on an opposite side of the centre point steering joint from the at least one swiveling motor, wherein both motors are located along the rotary axis.

5. (previously presented) The steering device of claim 2, wherein: the at least one swiveling motor is arranged above and/or beneath the centre point steering joint along the rotary axis.

6. (previously presented) The steering device of claim 3, wherein: the at least one swiveling motor is arranged above and/or beneath the centre point steering joint along the rotary axis.

7. (original) The steering device of claim 1, further including: an electronic controller connected to and controlling the operation of the pump.

8. (original) The steering device of claim 7, wherein: the electronic controller is a micro-

processor.

9. (previously presented) The steering device of claim 2, further including: sensors configured to record steering angle and further system parameters of state are positioned on the at least one motor.

10. (previously presented) The steering device of claim 3, further including: sensors configured to record the steering angle and further system parameters of state are positioned on the at least one motor.

11. (original) The steering device of claim 8, further including: sensors for recording the steering angle and further system parameters of state are positioned on the at least one motor.

12. (previously presented) The steering device of claim 7, further including: a joystick connected to said electronic control element for setting the steering angle of the vehicle.

13. (original) The steering device of claim 12, wherein the joystick includes a force-feedback function.

14. (original) The steering device of claim 11, further including: a joystick connected to

said electronic controller for setting the steering angle.

15. (original) The steering device of claim 14, wherein the joystick includes a force-feedback function.

16. (canceled)

17. (previously presented) The steering device of claim 11, further including: a set angle prescribed by the operator is recorded in the micro-processor, and depending upon that the quantity and direction of the volume flow to the at least one hydraulic steering motor is influenced.

18. (original) The steering device of claim 17, wherein: the actual angle of the steering device is recorded in the micro-processor and the volume flow to the steering motor is controlled by a control algorithm which is selectively variable depending upon the operating state of the vehicle, in particular a steering angle control and/or a steering angle velocity controller.

19. (currently amended) The steering device of claim 1, wherein:

the swiveling motor is positioned in the joint such that a connecting section of
[[a]] the first ground engaging component of a vehicle runs through the swiveling motor

Application No.10/535,125
Amendment dated October 8, 2009
Reply to Office Action of July 8, 2009
Attorney Docket No. 18062

and bearing points of the swiveling motor form a turning bearing between the first and
[[a]] the second ground engaging component of the vehicle.